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#### MANAGING WILDLIFE IMPACTS ON WESTERN REDCEDAR

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The value of second-growth western redcedar (*Thuja plicata*) has recently increased substantially and growth rates have been shown to be responsive to silvicultural practices. Forest managers now recognize the species' specialized ecological features such as resistance to laminated root-rot, and value toward increasing species diversity. However, in many areas wildlife impacts prevent cost-effective reforestation of western redcedar, thus reducing management options for promoting the species. Western redcedar plantations that have been severely damaged by elk (*Cervus elaphus*) and black-tailed deer (*Odocoileus hemionus columbianus*) are currently being studied by USDA APHIS and FS researchers to determine the timing and extent of browsing and the efficacy of candidate repellents to reduce damage. Other trials are being conducted on nursery seedlings in pen tests with deer and mountain beavers (*Aplodontia rufa*) to evaluate candidate systemic and foliar repellents, to assay the uptake of systemics by the foliage, and to test the relative palatability of alternative plant species. Preliminary results have shown that certain foliar repellents can significantly reduce browsing and that although preference is shown for western redcedar over Douglas fir (*Pseudotsuga menziesii*) there is a higher preference for some evergreen forbs such as catsear (*Hypochaeris radicata*). Future work will refine strategies to reduce wildlife impacts on western redcedar to help re-establish the species as a major component of the habitat.